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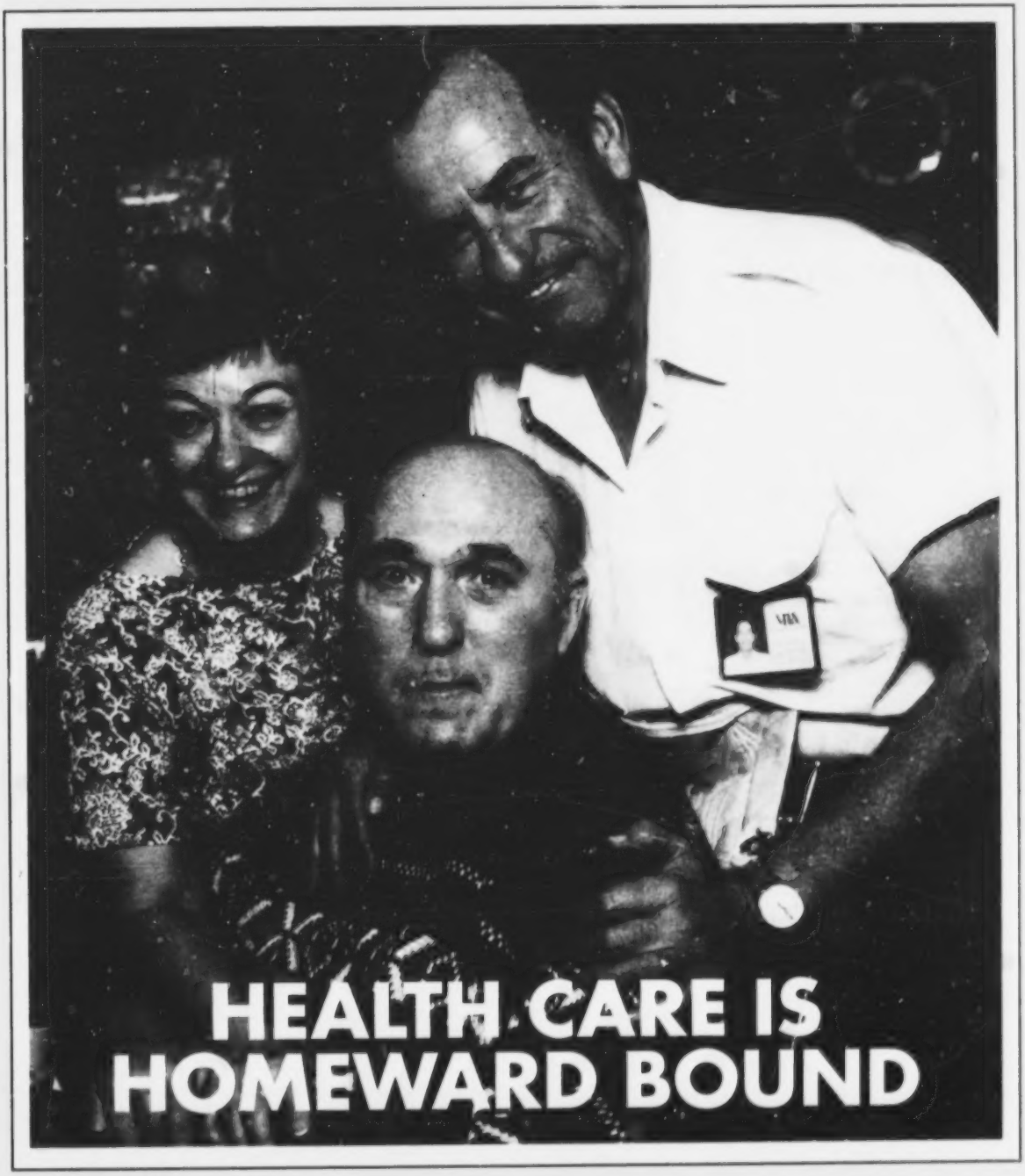

THE MAGAZINE OF THE WORLD HEALTH ORGANIZATION

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The National Association for Home Care for the United States (Mr Val Halamandaris, President) has kindly contributed the resources to provide colour pages in this issue.

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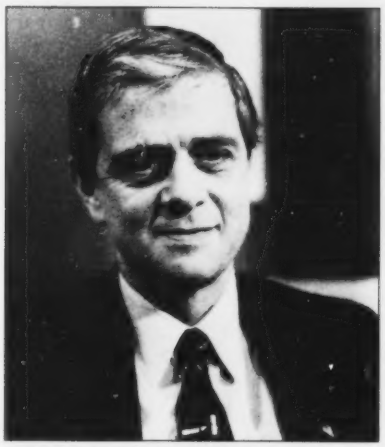
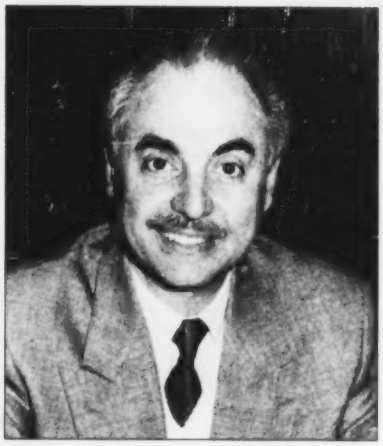
Home care in an aging world



Dr Knight Steel, Director-General of the World Organization for Care in the Home and Hospice.



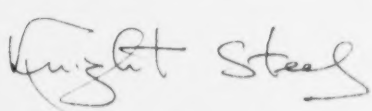
Dr Hussein Gezairy, Director of the World Health Organization's Regional Office for the Eastern Mediterranean.

One of the formidable challenges in the approaching century is to provide health care to the rapidly increasing numbers of elderly throughout the world. While the developed countries are beginning to take a series of measures to respond to the economic, social and health care issues of this transition, the developing countries have yet to assess the magnitude of the impact of these changes. A decade or so into the future, 10-12% of the total population will be 60 years old and over. In only six years time there will be 600 million elderly individuals, of which two out of three will reside in the developing world. What worries planners most is that a majority of the elderly will be economically non-productive, and many will be socially isolated and at risk of unnecessary and even permanent disability.

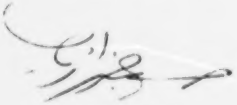
Today there are many developing countries where the primary health care system is far from being able to achieve the goal of health for all, in spite of very substantial efforts having been made during the last two decades. Economic pressure has forced many governments to make adjustments in national planning among which unfortunately the social sectors, health and education, are so often the victims. Primary health care is the only available means to serve the majority of the elderly population in the developing world, but there is often no operational component targeted to the needs of the elderly. Most developing countries should therefore begin by including health care of the elderly within their health protection and promotion programmes for the general population.

The prevailing cultural norm in most countries in all regions of the world is that parents and sometimes grandparents are looked after at home by their grown children. Most families, in both the developed and developing world, are more than willing to care for their elderly members to the limits of their abilities, but they too need support. However, the extended family system is breaking down in several countries with the result that many elders are finding it difficult to obtain home care. Day care centres for the elderly and community care through informal carers clearly have potential. Efforts in many developed countries to maintain healthy elderly persons in the workplace will go a long way to providing economic independence, as will old-age pensions and similar subsidies. In addition, families must have support from the national health care system, in collaboration with nongovernmental organizations wherever they are active, and social support from the community to enable the elderly to remain socially active as long as possible. Although specialized hospital care will be required at times, the strategy should always be to bring health care to the individual homes.

This issue of *World Health* focuses on compassionate home care which is loving as well as technologically sophisticated. It highlights the policy implications of home care as governments consider costs and efficiencies of service. There will be a need for curricular changes for all types of professionals who will provide services in the home and education and support for families, as well as more and better research in the home setting. These efforts need to be directed to ways of providing better services, and the most effective way to prevent diseases that preclude us from achieving the highest quality of life for the longest possible duration. ■



Knight Steel



Hussein Gezairy

The "greying" of the nations

Ghada Hafez

Developing countries in general have not yet felt the impact of the rapidly increasing proportion of elderly people in their populations. Where will all these elderly live and who will care for them?

The global demographic transition commonly known as the "greying" of nations is causing considerable concern – both nationally and internationally. It is a daunting prospect for any country to have to maintain aged individuals constituting 15-25% of its total population, many of whom will be economically non-productive and physically frail with multiple disabilities and handicaps, due to a number of chronic clinical disorders.

The countries of Western Europe and North America have felt the impact of this transition for decades and have adopted many measures to meet the major challenges ahead, especially economic and health-related ones. The developing countries in general have not yet truly felt this impact, and many are unprepared and even unaware of this demographic phenomenon. The WHO Regional Offices for Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific have been alerting countries to this "writing on the wall". They have developed a strategy covering the period 1992 to 2001 to assist countries to respond to the challenges.

It is ironic that when the aspirations of every country to ensure a long life-expectancy for every individual are going to be achieved, there is now global concern about how to maintain the quality of life for this ever-increasing elderly population. In the last century, one could have counted the number of centenarians in a given country on the fingers of one hand. Today, Japan – with the highest life expectancy – has more than 3000 centenarians.

The gloomy prospect of one economically productive person maintaining three or four non-economically productive individuals is a matter of considerable concern. Where will the elderly live and who will care for them?

Break-up of families

In most if not all developing countries the prevailing practice, based on long-standing cultural traditions, is to maintain aged parents at home. But in recent years, the large-scale migration of young adults to urban areas and even to richer countries, and the gradual breaking up of extended families, have to a large extent been responsible for the elderly population being left uncared for. Homes for the aged and similar institutions in some big cities may cater to those elderly whose affluent grown children bear the expenses; but this covers only a very small percentage of the older population. There will increasingly be a high proportion of elderly people who have no one to depend upon and who have to be taken care of in homes

The tradition of younger generations being able to maintain their aged parents is gradually breaking down throughout the world.

run as charitable institutions by nongovernmental organizations (NGOs) and religious bodies.

Care of the elderly – strategy for the future

Financial and technical constraints prevent most developing countries from undertaking organized programmes to fully address the economic and health care issues of the elderly. The providing of home care, the obvious choice for a vast majority of families in the developing world, will face considerable obstacles in the coming years. Properly supervised old-age homes of appropriate standard constitute an expensive venture, to which the elderly cannot hope to contribute sufficiently.

Even in the developed countries making widespread use of such chronic institutions or keeping those with long-standing clinical disorders in hospitals, occupying scarce hospital beds for long periods, cannot be the solution.

Surveys carried out in the countries of the Eastern Mediterranean Region have confirmed that most people consider the home to be the place where the elderly should live and where they are likely to derive the greatest emotional satisfaction.

Life-expectancy at birth is becoming longer in most countries. How are they to maintain and care for their increasingly aging populations?

Grandfather and child. Healthy old people have a major contribution to make to the health and development of their community.

However, assistance will have to be provided to families. Various forms of support will be needed:

- financial, through old-age pensions;
- subsidized food, transport, medicines and other necessities;
- where families have no space, subsidized accommodation for the elderly (provided by the government) with families responsible for their care;
- free (or heavily subsidized) spectacles, hearing aids and equipment for mobility (provided by the government, NGOs and religious bodies);
- day-care centres for the aged (established by NGOs and religious bodies), with free meals when possible;
- well-prepared mass media messages to train "carers" in individual families;
- messages and advice to the elderly on hazards facing them and how to overcome them;
- special efforts by the social welfare sector and by NGOs to use healthy elderly people in various types of social, community and health development work.

Meeting health needs

Most diseases and disabilities in the elderly are of a chronic nature, needing home-based care. Primary or community health care workers, in the towns or countryside, should bear the major responsibility for providing health care to the elderly, and especially for "training" them in how to take care of themselves. The WHO Eastern Mediterranean Regional Office is in the process of publishing a manual to help in training primary health care workers in this work.

By and large, home care is the only solution for most developing countries, but this can only be made possible if the government, NGOs, religious bodies and the people themselves take action now as equal partners. ■

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The frail and elderly have special health requirements that must not be ignored.

An aging world population

Kevin G. Kinsella

Does longer life translate into healthier life, or are individuals spending a greater portion of their later years with disabilities, mental disorders, and disease?

Every month, the present world total of 360 million persons aged 65 and over increases by 800 000 individuals. Three decades from now, the world's elderly are projected to number 850 million. This unprecedented growth of the older population has already changed the social and political landscape in industrialized nations, and will increasingly bear upon policies and programmes throughout the developing world. Although issues of health care policy and reform vary enormously among and within continents, most national decisions in the health arena are already – or soon will be – affected by the momentum of population aging.

The term "demographic transition" refers to a gradual process whereby societies move from high rates of fertility and mortality to low rates of fertility and mortality. For example, European and North American societies are growing older, as a result of persistent low fertility and increasing life expectancy. Sweden now has the world's "oldest" population, with more than 18% of its citizens aged 65 or over.

What some readers of *World Health* may not realize is that a majority of today's growth in the numbers of elderly is occurring in developing countries. The speed of aging is likewise more rapid there than in the industrialized world: while it took 115 years for the proportion of elderly to rise from 7% to 14% in France, the same change in China will occur in fewer than 30 years. The high fertility rates that prevailed in most developing countries from 1950 until at least the early 1970s ensure that the ranks of the elderly will continue to swell during the next four decades.

Related to the demographic transition is the epidemiological transition. This concept refers to a long-term change in major causes of death, from infectious and acute diseases on the one hand to chronic and degenerative diseases on the other. We know that the average individual's risk of becoming disabled rises with age. As entire populations age, the societal prevalence of disability is also likely to increase. And as we live to higher and higher ages, the debate is brewing: does longer life translate into healthier life, or are individuals spending a greater portion of their later years with disabilities, mental disorders, and disease?

Further research is needed to answer this question, but it appears inevitable that the sheer force of demographic change will compel most countries to grapple with increased demand for health care. Elderly populations themselves are becoming older on average as the growth rate of the "oldest old" (persons aged 80 and over) outpaces that of the elderly in general. Because the oldest old consume disproportionate amounts of health care and long-term services, provision of those services will become more costly. Many health systems today are being economically squeezed by the competing desires to keep pace with a growing elderly population and to expand basic coverage to all segments of society. Countries throughout the world are looking beyond their borders for clues about restructuring their health systems, avoiding primary reliance on institutional care, and promoting family care and home care for their aging populations. ■

Dr Kevin G. Kinsella is Head of the Aging Studies Branch at the Center for International Research, US Bureau of the Census, Washington, DC 20233, USA.

Towards a healthier, longer lifespan

Gene H. Stollerman

Live well, eat well and be positive. Those who have survived to old age should be well informed about the many ways to prevent disease, to maintain the quality of life, and to extend their survival.

All of us would like to look forward to a full measure of life, with reasonable preservation of its quality. At its end, we hope for maximum prevention of morbidity and minimal terminal suffering. Progress towards these goals in recent years has been impressive, and such good fortune seems ever more achievable. Many preventive medicine and health maintenance initiatives, begun as early in life as possible, can assist us in this progress and all individuals – especially those entering the older years of their lives (and those caring for them) – should seize these initiatives. People should not depend on current health care systems alone, for the latter are too often geared towards crisis and acute care in hospitals where the high-tech fight for extension of life is very expensive and often too late. Those who have survived to old age should be well informed about ways to extend their survival.

Prevention of disease

Immunization is by far the simplest and most cost-effective preventive measure. Many good vaccines are available, but regrettably are not given even when recommended by experts. At least four vaccines are already recommended for the elderly: influenza, pneumococcus, tetanus and diphtheria. Patients themselves should remind their primary health care provider that their vaccines may be due. Help your doctor to help you by asking what immunizations you may need.

Influenza vaccine requires an annual injection in the autumn. Don't expect the vaccine to prevent colds and other respiratory infections that are not influenza but merely imitate it. The vaccine is very safe, has only mild side-effects for the vast majority of persons and is quite effective, but not totally so. When protection is incomplete, the infection is nonetheless usually decreased in severity. The major disadvantage of influenza vaccine is its relatively brief protection period.

Pneumococcus vaccine needs to be given once only, except in special circumstances. Because pneumococcal pneumonia is primarily a winter disease in temperate climates and often comes in the wake of influenza, elderly persons who have not been immunized with pneumococcal vaccine should be reminded to take it when they report for influenza vaccination. Survival from pneumococcal pneumonia is particularly difficult for the elderly, who have less resistance to life-threatening infections than do young adults and are prone to post-infection blood-clotting complications such as stroke, myocardial infarction (heart attacks) and pulmonary embolism (lung clots).

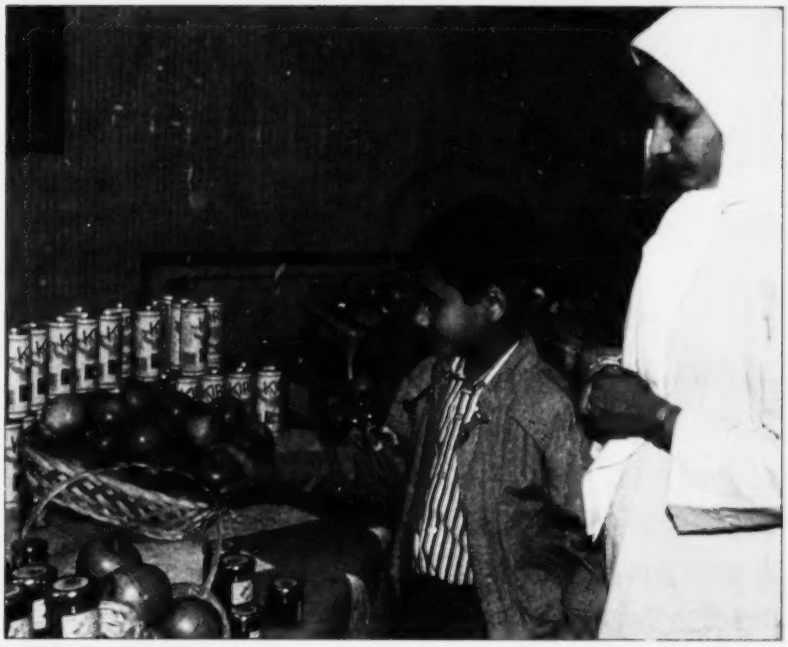
Tetanus-diphtheria vaccine is given routinely in childhood but immunity wears off within ten years; it therefore needs to be boosted every decade. By old age, most individuals will have lost or markedly decreased their immunity to tetanus and diphtheria if they have not received a booster injection in the past decade. Tetanus is always a risk from wounds that are contaminated with soil. Retaining immunity to diphtheria requires just a tiny

amount of the vaccine, so it is usually incorporated into the tetanus vaccine that is used as a "booster" once every ten years. Have you received such a booster within the past ten years?

Other hazards

The use of the highly effective new vaccines for hepatitis B should be considered on the basis of an individual assessment of risk. Universal immunization of children with the hepatitis B vaccine may eventually make this a disease of the unimmunized elderly. Like smallpox and measles, hepatitis B has the potential to be eradicated by immunization, provided the vaccine becomes one of the routine childhood immunizations. Let's do it throughout the world! Regular skin testing for tuberculosis is another important preventive measure, especially in the elderly whose immune status to this disease should be regularly updated on their health record.

When seeing any health professional, it is worthwhile to ask about the status of your immunizations.



Healthy foods – your passport to a longer lifespan.

Eat wisely and take exercise

Another universal way of preventing disease is a healthy diet. Even in the most affluent countries, many of the elderly are undernourished (not enough food) or even malnourished (unbalanced diet). The impact of malnourishment on quality of life and longevity is enormous and can result in fatigue, insomnia, diminished resistance to infection and depression. Disease is often an appetite killer, and so is reactive depression, which haunts the elderly for whom causes of depression abound, such as bereavement or loss of physical functions. Depression and loneliness may cause weight gain as well as loss; some people eat for comfort or out of boredom, and obesity may become a problem. Adequate dental care and oral hygiene is another factor in maintaining adequate nutrition.

At least one meal a day should be in the company of others. Choose a balanced diet, preferably one with vegetable oils rather than animal fats and one high in complex carbohydrates such as pasta, potatoes, rice and corn but low in simple sugars such as sweets and other confections. Sufficient protein is found in beans, cereals, fish and chicken. The diet should be supplemented by generous amounts of green vegetables and fresh fruit which provide an adequate supply of vitamins. Foods with high fibre, low cholesterol and low salt are generally to be preferred. To lose weight avoid fad diets. A diet that cannot be sustained indefinitely is virtually worthless and may be harmful.

Don't forget about a high fluid intake! Water is one of the most important components of good nutrition and the best defence against constipation, a very common affliction of the elderly.

All older adults should be encouraged to exercise within the limits of their physical capacity and on the advice of their physician in order to avoid harm from over-enthusiasm. Lack of enthusiasm to exercise is usually a bigger problem, however, and it is often aggravated by depression. Ironically, a major treatment for depression is exercise! A graduated exercise programme can reduce symptoms of heart disease, reduce bone loss associated with aging and increase muscle mass and strength as well. It can also improve mental functioning, elevate mood and contribute to an overall sense of well-being. Simple walking done regularly, especially with companions, may be all the exercise that is needed.

A positive attitude towards other people and society in general increases the quality of life

Be positive!

Positive attitudes may not be easy to sustain in the face of chronic disease, the death of friends and a decline of physical and mental powers. One powerful force for survival in the face of adversity is commitment. Even devotion to a pet has been shown to increase survival! Join with a group of persons in an activity you enjoy so that you can give as well as get support.

Finally, consider the complications that could arise from unwanted and ineffectual care at the very end of your life. Confront squarely the issues of such management as you would like for yourself. Discuss this openly with your family, and nearest and dearest friends. Select your trusted agent (proxy) who has been instructed by you to carry out your wishes should you no longer be able to do so. Write out and have witnessed a statement of what limitations you may wish to place, if any, on your terminal care. The current social, legal and medical climate in the world is strongly in favour of a high degree of patient autonomy, and most physicians are ready to support your choice, unless what you desire is medically and/or morally unreasonable. ■

Sharing mealtimes with others encourages sensible nutrition and keeps morale high

Dr Gene H. Stollerman is Professor of Medicine and Public Health at the Boston University School of Medicine, Section of Geriatrics, 720 Harrison Avenue, Boston, MA 02116, USA.

Home care for the disabled elderly

Judy Briggs

Demographic changes will result in more home-based very old people and fewer "young elderly". It is from these young elderly that the carers of tomorrow will emerge.

The occupational therapist has an important role to play in the provision of home care for disabled older persons. Preserving independence and improving function are central to this approach. The therapist consults with relatives and friends in the old person's life, building up a picture of perceived needs whether physical, emotional, social or economic. What does he or she want? How would they like to achieve it? And with whom? Together they then make a decision about the maximum independence achievable. "Enriched quality of life" is the agreed goal. Stereotypes of old age in modern society can influence our expectations of each other; society today is geared around youth, giving it much power and status. The therapist can help to redress this imbalance.

Housebound old people experience many physical problems – pain, limited mobility or an increased tendency to fall, with consequent injury and even death. Restricted movement of hips and shoulders means that seats and beds may need to be raised, and crockery and food made more accessible.

Old age also diminishes the senses. Hearing checks and aids should be encouraged to prevent increasing isolation; louder bells and increased volumes on the telephone, radio and television can help. Loss of visual acuity is in itself frightening, but therapists can recommend many low-vision aids, especially for use in the kitchen which is a dangerous area needing good lighting. Incontinence brings humiliation and loss of dignity which may be alleviated simply by the provision of a commode or referral to a specialist. For many activities of daily living an occupational therapist can recommend devices, however small, which may make the difference between self-reliance or dependence.

Therapists and family members can cooperate to enrich the quality of life for the homebound elderly.

The homes of old disabled persons need to be regularly checked to remove unnecessary hazards.

In winter many old people suffer from the cold, especially if their income is low. The solution may be to keep one warm room for living and sleeping. A limited budget also prevents the older person from using "convenience foods" which are now on the market; a dietitian can give useful advice about a nutritious diet. In general the old may suffer many losses – hearing, sight, memory and companions; the occupational therapist will try to address these concomitants of old age.

Hazards in the home

Old people tend to live in some of the worst housing, even though they are the people most at risk. In making an assessment, the therapist checks all physical aspects of the home such as

The carers of tomorrow will emerge from the group of the "young elderly".

Solving problems is the ideal approach adopted by occupational therapists.

access, steps, ramps, internal and external stairs, door widths, turning circles for wheelchairs, and the heights of chairs, beds and toilets. Hazards exist in all homes, but when an old disabled person is present it is imperative to reduce risks to a minimum. The therapist watches for trailing cables, overloaded electric sockets and loose rugs.

As we have already seen, the kitchen is the area of greatest hazard because of the hot oven, gas taps and scalding hot water. Add to this unsteady hands and feet and failing eyesight, and the problem is magnified. A sensitive assessment may result in a decision to close the kitchen and disconnect the gas cooker in extreme circumstances.

Role of physical therapists

Physical therapists too have an increasing role to play in the care of elderly persons. A report produced by the World Confederation for Physical Therapy (WCPT) in collaboration with WHO showed that only a small number of physical therapists had expertise in this area of practice. Their education and training did not seem to focus sufficiently on the needs of this age group. So in 1992, at a meeting arranged by WCPT at the International Institute on Aging in Malta, plans were drawn up to meet those needs. One result was a position statement which recognized the rapid escalation in the number of elderly persons throughout the world, and urged the active involvement of physical therapists in developing services for the elderly in policy and planning at international, national and local levels.

It is not uncommon for the carers themselves to be elderly and to have their own problems, in which case the occupational therapist should be sensitive to this in analysing the situation. The care-givers may be depressed by the seeming relentlessness of their task and loss of freedom or "personal space", and they may also have financial worries.

Carers often express feelings of guilt about the quality of the care they give. If the burden becomes too great and the old person needs residential care, then the carer may be left with feelings of helplessness or of being trapped. It is at this stage that they need to know where to turn for help.

A variety of resources are available in different countries. They may include homes run by the local authority, day hospitals offering multidisciplinary therapy, or disablement services centres. Rehabilitation in the community may be possible through home visits by physiotherapists, occupational therapists, speech therapists or district nurses as well as the general practitioner. Terminal and palliative care can be provided through specialist nursing homes and hospices.

Many societies are supported by voluntary bodies, such as local church groups, luncheon clubs, "Age Concern", self-help groups, "Meals on Wheels" and women's societies. There are also specific associations and societies caring for sufferers from Alzheimer's disease, motor neuron disease and other chronic diseases. There may be various types of sheltered housing, warden-assisted accommodation and residential care. Any of these options can become an attractive alternative to old persons failing to cope in their own home.

The problem-solving approach of the occupational therapist can help to check the deterioration of function in old age, and so be life-enhancing. Many countries will very soon face serious health and social problems as a result of the "greying" of society. In England and Wales between the years 1990 and 2000, for example, the number of people aged 85 years or over is projected to increase by 35%. At a time when the emphasis is on community-based rather than hospital-based care, these demographic changes will result in more home-based very old people and relatively fewer "young elderly". However, it is from these young elderly that the carers of tomorrow will emerge. The occupational therapist of the future can play an important part in supporting the carers as well as those who will need care. ■

Mrs Judy Briggs is the Occupational Therapy Services Manager at City Hospital, Hucknall Road, Nottingham NG5 1PB, England.

Rehabilitation in the community

Naomi Rumano

This young woman, despite her disability, has sewn a child's dress with her feet

Community-based rehabilitation (CBR) programmes are in principle multi-disability oriented and aim for joint multisectoral action at the level of the community, supported by an appropriate referral and supervisory system. Each programme implies the transfer of skills and knowledge of rehabilitation to people with disabilities, their families and their communities. It empowers disabled persons and facilitates their social integration. It is estimated that the CBR approach meets the essential needs of 70-80% of all disabled people in the community. The remaining 20-30% of the needs have to be met at referral levels, including institutions.

Community-based rehabilitation programmes aim:

- to promote awareness, self-reliance and responsibility for rehabilitation in the community;
- to build on local manpower resources in the community, including disabled persons, their families and other community members;
- to encourage the use of simple methods and techniques which are acceptable, affordable and appropriate to the local setting;
- to use the existing local organizations and infrastructure to deliver services, especially primary health care services, but also labour and social services including the education system.

Families who take care of children or adults with disabilities often face a lack of understanding about the disability as well as negative attitudes within the community. Because of heavy workloads, particularly during planting or harvesting, family members have little or no time to spare to assist someone with a disability. CBR addresses these problems and gives support to families so that they can be active in a rehabilitation process for a family member with a disability. The CBR programme may conduct public meetings to raise awareness about the causes of disability and the potential abilities of disabled people. It trains community workers who visit and advise disabled people and their families, and it encourages support from the community for those families. It also includes supervision from district level rehabilitation workers who visit homes where there are problems which cannot be handled by the community worker.

Achievements in Zimbabwe

A CBR programme in Gutu District of Masvingo Province, Zimbabwe, offers an example of what can be achieved. Fifteen self-help projects were started, and at the end of two years a total of 1087 disabled persons had been assessed:

- 900 were on training programmes, and 316 of them were making good progress;
- 68 had completed training and were discharged as functional;
- 82 had achieved social integration at home, within families and in schools;
- 6 were able to get employment locally;
- 500 had benefited from referral services;
- 167 were receiving appropriate aids. ■

Mrs Naomi Rumano is a CBR Consultant working in Harare. Her address is: 33 Hedsar Drive, Borrowdale, Harare, Zimbabwe.

"High tech" home care

Mary Suther

A staff member of The Visiting Nurse Association of Texas examines a patient in her home.

Home care has benefited from high technology. Of course, all "high tech" services are ultimately designed to support the human touch that home health agencies provide.

Technology has dramatically affected home care in three major ways. First, improvements in technology have resulted in the development of miniaturized and user-friendly procedures and helpful devices. Second, the availability of technologically advanced equipment has increased the need for professional home care services for an increasingly elderly and functionally impaired population. Third, advances in telecommunications and information management have promoted increased efficiency and timeliness in the delivery of home health services.

Let us consider what can be achieved now and what may soon be possible in "high tech" home care by looking at The Visiting Nurse Association of Texas (VNA) as an example. VNA is a non-profit home care agency serving the needs of a population of about 4.5 million persons. Its 1400 employees and 5000 volunteers minister daily to more than 8000 individuals with a wide variety of health and social problems. Technology has made it possible to provide a comprehensive home care programme with new clinical tools that may be used by a nurse, physical therapist, occupational therapist or speech pathologist or, at times, by a trained family member or patient.

Trained nurses are available 24 hours a day, seven days a week, to supervise patients with continuous intravenous drips. Blood products and blood, a variety of chemotherapeutic agents, total parenteral nutrition, and whatever drugs are necessary to achieve control of pain can be administered. Additionally, the intravenous administration of antibiotics, immune globulins, and agents used in the treatment of viral and fungal diseases can be routinely overseen.

These therapies can be administered safely at home with simple, portable infusion pumps that carefully regulate the flow of medications and chemicals. The procedures can, in most cases, be taught to the patient or family member, thereby decreasing cost and increasing the independence of the patient.

The care of the cardiac patient has been greatly expanded over the past decade and now routinely includes cardiac monitoring via a small hand-held device that records either a two or twelve-lead electrocardiogram. This information is then transmitted over a telephone

"High touch" – the indispensable complement of high technology care.

line to a central laboratory, where it is printed and retransmitted by fax to a physician who interprets it and makes the necessary decisions. The doctor can provide information to a nurse for immediate initiation of treatment if warranted. The telephone line can also be used to evaluate the functioning of a patient's pacemaker.

Increasingly, high-risk infants can be cared for effectively in the home environment. Apnoea monitoring devices are able to detect episodes of interrupted breathing and sound an alarm when the infant is in distress. Parents are taught emergency procedures to carry out until professional help arrives. The miniaturization of ventilators has been a boon in keeping infants and children out of institutions.

It goes without saying that computers have revolutionized the administrative functions of home care. They have enabled the scheduling of visits, the design of routes geographically for delivery, the measurement of productivity, and a more discrete costing out of goods and services. Fax machines too have improved the accuracy and timeliness of orders from physicians who oversee the care of these patients. VNA now uses over 500 fax machines; all nurses and therapists have one at home and can receive doctors' orders accurately and on time without having to come to the office. On this service the number of visits increased by 14% after all providers obtained fax machines.

Deep heat applied by ultrasound to decrease pain in arthritic joints.

Of course, all "high tech" services are ultimately designed to support the human touch that home health agencies provide. Home is where we want to be when we are sick, and home is where we can recover fastest if we have the proper care. ■

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This tetraplegic patient – almost completely paralysed – communicates with his family and health staff by means of a computer.

An infant cardiac patient has to be fed by tube.

"That nurse-troublemaker"

Barbara Phillips

Disturbed by conditions she found on New York's Lower East Side at the turn of the century, Lillian Wald founded the Visiting Nurse Service of New York (VNS) in 1893. This innovation marked the birth of public health nursing in the United States. A social reformer and registered nurse, Wald also established New York's first public playground, the first school study hall, and the first special-education class for the handicapped. She lobbied successfully for school lunches and for nurses in the public schools. The powers-that-were called her "that nurse-troublemaker".

Today, under president and chief executive officer Carol Raphael, VNS is the largest non-profit provider of home health care in the United States, making more than two million home visits a year. In 1993, VNS provided more than US$ 10 million in free care to the uninsured and the indigent.

VNS has nearly 5000 employees. Nurses, home health aides, rehabilitation therapists, psychiatrists, physicians, social workers and case workers provide essential services to tens of thousands of the most vulnerable New Yorkers, from newborns to senior citizens (VNS serves 53 New Yorkers who are at least 100 years old), from HIV-infected children to terminally ill patients seeking the dignity and comfort of being cared for at home.

VNS is noted for its innovative programmes. Its First Steps Programme provides comprehensive services to substance-abusing women who are pregnant or have very young children. It delivers health care at several public schools (with the Children's Aid Society), and its paediatric asthma programme prevents the unnecessary, costly hospitalization of children. The agency is the single largest provider of home health care to people with AIDS in the United States. VNS provides mental health services for the homeless, and counselling to survivors of tragedies like the World Trade Center bombing. It provides free influenza vaccinations to the elderly (with the NYC Department of Health). Its "Nursing Home Without Walls" serves the chronically ill elderly at home. VNS is one of just four groups in the United States to receive Federal funds for studying how community nursing care can improve the health of the elderly.

VNS's new Research Center will help to answer other key questions: How can home care provide better outcomes for patients? How can it be made more efficient?

In *House on Henry Street*, Lillian Wald wrote, "The call to the nurse is not only for the bedside care of the sick, but to help in seeking out the deep-lying basic cause of illness and misery, that in the future there may be less sickness to nurse and to cure." VNS today continues Lillian Wald's legacy. ■

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Health care moves to the home

Knight Steel & Henk Tjassing

A high technology monitoring device enables the nurse to provide cardiovascular care in the home.

To underline the importance of home care to all nations of the world, WHO is sponsoring a conference entitled "As the World Ages, Health Care is Homeward Bound", scheduled for 22-23 October 1994, in Chicago, Illinois, USA. Held under the auspices of the World Organization for Care in the Home and Hospice, the Carnegie Council on Ethics and International Affairs, and the Alton Ochsner Medical Foundation, with a number of leading nongovernmental organizations as co-sponsors, the two-day conference will provide four concurrent "tracks" of interest: *International models*, *Accreditation and education*, *Economics and policy*, and *Research*.

International models will focus on a comparative analysis of present-day home care programmes, taking into account the diversity of present practices, expectations, needs and resources around the world. There can be no single international model for home care, and indeed the use of "high tech" home care is only beginning to be considered in most countries. By studying what has been successful and what has failed in the policy and practice of home care, we can design new and better systems to meet the world's forthcoming needs.

The track dedicated to *Accreditation and education* will concern itself with the training needs of doctors, nurses and other health workers who must function in the home setting. Special attention will be given to the educational needs of family members and other informal care-givers.

Economics and policy will highlight the political and economic climate in which care is being provided. Home care is not an isolated issue and must be seen in the context of limited resources and competing agendas. The emergence of new democracies and the costs of providing new technologies will come under discussion. The needs of the aged and the terminally ill will also be addressed, as well as the issues surrounding the provision of health insurance for all.

The fourth track, *Research*, will concern itself with three quite separate research agendas: health services research, the study of diseases frequently seen in the home (such as Alzheimer's disease), and preventive medicine. Comparisons between home care and institutional care, both acute and chronic, will be considered, with emphasis given to such items as nutrition, pain management and iatrogenic or hospital-caused disease (especially infections). Diseases seen predominantly in the home need to be a new focus of attention for researchers, since the functional deficits of chronic diseases create hardship for the enlarg-

A visiting health worker examining a patient in China.

ing older population as well as for those who are younger yet afflicted with disabling illnesses.

This conference will bring together health care providers, researchers of many types, cultural anthropologists, educators, corporate representatives and policy-makers at both the national and international levels. While the agenda cannot satisfy all the questions pertaining to home health care, it will mark the beginning of a better understanding of this increasingly predominant setting of care. ■

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First International Home Care Week

The World Organization for Care in the Home and Hospice (WOCHH) in association with the National Association for Home Care (United States) would like to collaborate with all nations of the world in designating the week of 27 November to 3 December 1994 the First International Home Care Week. Interested parties should please contact Dr Knight Steel, Director-General of the WOCHH, 519 C Street NE, Washington, DC 20002-5809, USA. Tel. 202-546-4756. Fax 202-547-7126.

Does home care save money?

Michael Sorochan & B. Lynn Beattie

A home care programme can be very cost-effective and can save millions if not billions of dollars, both in capital costs and operating costs. But it must be accompanied by a reduction in the total number of institutional beds.

The rapid increase in the numbers of elderly people around the world calls for fundamental health care reforms.

Health care systems around the world are more studied and more ripe for change today than ever before in history. Many such studies recommend dramatic changes in the traditional "health care" system if the population requiring care is to receive, or to continue to receive, affordable and quality health care. Many factors underlie this need for health care reform.

Changing demographics and associated utilization rates. There is a significant increase in the proportion of the population which is elderly, especially in the developed world. For example, the number of persons in Canada aged 85 years of age and over is projected to double over the next 20 years and triple over the next 40 years.

Weakening informal support systems. It is estimated that over 85% of long-term care provided in society today is carried out by "informal" care providers such as spouses, children, relatives, friends and neighbours, at little or no cost to government. Lower birth rates have already begun to reduce the availability of children to support the older generation. Higher divorce rates and the increasing participation of women in the labour force will further decrease the availability of informal care.

A worldwide need to control the amount of money spent on health. Limited resources in most areas of the world have resulted in cutbacks on spending by governments for health care, social services and housing programmes. Hospitals and other sectors of health care are under pressure to "down size", while governments and health care agencies are frantically searching to find the least costly alternatives to the provision of high quality care. An expanded community care or home care system is frequently hailed as the possible "saviour" for the health care system's financial woes, especially as it also offers the promise of a better quality of life.

What is home care?

Home care can be defined as an array of health and social support services provided to clients in their own residence. Such coordinated services may prevent, delay or be a substitute for temporary or long-term institutional care.

A diabetic patient learns how to monitor her own blood glucose level without going to a clinic.

For almost all people, the home is the setting of choice for receiving health care.

Without question, the home is the desired setting for receiving care. Can we say with the same certainty that home care is more cost-effective than care provided in an acute or long-term institutional setting?

In one province of Canada, Ontario, an investment of only Canadian $300 million per year in the Home Care Programme is estimated to have produced savings of $1800 million in capital costs, and $500 million in annual operating costs. Reducing the numbers of elderly placed in institutions has been identified as the largest potential source of savings to the Canadian health care system. Similar studies in Denmark, the United States and other countries support the notion that many elderly and handicapped persons only require care in costly institutions because of the lack of adequate home care services. At the same time, over the last decade, home care programmes have managed to minister to the "high tech" needs of many persons – with services previously only provided in costly acute care hospitals.

The key to cost-effectiveness in the provision of home care is the appropriate "targeting" of persons who are suitable to be served. Services should reinforce rather than erode self-help and the informal support given by family members and friends. Furthermore, if home care is to be cost-effective, persons must become as independent as possible because of the availability of home services.

Thus, in one case, care in the home may be cost-effective because there is an available, caring spouse or other relative. In another case, home care may be much more costly than institutional care because of the pressing need for on-going, paid professional and non-professional care. One point always to remember is that, if the burden on the informal care-giver becomes too great, the home care arrangement may break down altogether, thereby resulting in a marked increase in cost to the health system.

Proving cost-effectiveness

It may be difficult to demonstrate the cost-effectiveness of home care programmes which focus on health maintenance and preventive services (e.g., wellness programmes, housecleaning, personal assistance, etc.), because persons served by these programmes are usually not at risk of being placed in acute or long-term institutions.

Home care may be more cost-effective in comparison to hospital care when an individual case is studied. However, the introduction of a service may result in a more costly health care system as a whole, unless other adjustments are made in the system. In order to realize a decrease in total costs to the health care system, the expansion of home care must be accompanied by a corresponding reduction in the supply of hospital or institutional beds.

Furthermore, while it may be more cost-effective for a government to provide care at home, it may not be cost-effective for the patient or family; the latter may face more "out-of-pocket" expenses when receiving care at home than would be the case if the sick person received care in a hospital. In many countries, a family must pay for drugs, equipment, dressings, food and home care services which would be provided in a hospital at no expense to the patient or family. Moreover, an informal care provider may have to forego employment in order to remain at home to look after an elderly person. A home care programme must therefore be structured with these facts in mind.

The wife or husband is often the only care-giver for the ailing elderly companion.

In summary, yes – home care can be very cost-effective and can save millions if not billions of dollars, both in capital costs and operating costs. However, specific targeting of clients is needed and institutional beds must be reduced in number or not added to. Additional benefits can be obtained because disabled persons can pursue work and educational opportunities which would not otherwise have been possible.

Although economic considerations are of great importance, it must never be forgotten that home care provides a holistic, client-focused philosophy of care, and allows maximum autonomy and independence for each individual in a familiar environment – the home. ■

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The challenge of AIDS home care

Sandra Anderson & Noerine Kaleeba

Some countries have set as a target that by the mid-1990s the majority of people living with AIDS will be managed at home. This challenge can only be met if a strategy exists to develop comprehensive care across the continuum from hospital to home.

The numbers of people becoming ill as a result of HIV infection will dramatically increase over the next few decades regardless of the effectiveness of efforts at prevention being made today. Since AIDS is a chronic disease lasting months or years, some of the care required is likely to be supplied in hospital, but the home is increasingly considered the option of choice by sick individuals and by health care systems.

Home care relies on two strengths that exist around the world: the family and the community. People with chronic and terminal illnesses have been cared for by families in the home since time immemorial, regardless of the cost. But the AIDS epidemic presents new challenges.

Because home care lends itself to the "ups and downs" of a disease like AIDS, it is tempting to rely heavily on the families to provide care at home. Some countries have set as a target that by the mid-1990s the majority of people living with AIDS will be managed at home. This challenge can only be met if a strategy exists to develop comprehensive care (medical, nursing and counselling) across the continuum from hospital to home.

Once such a mix of services is available the ill person and the carers can jointly decide where the best quality and most cost-effective care is to be found. As with other chronic diseases, the best care depends on a continuity of services, with links and referrals to assist the sick individual to receive care at the right level, i.e. as close to the home as possible while still receiving comprehensive management, including proper diagnostic and therapeutic services for AIDS-related diseases, such as tuberculosis and diarrhoea.

Destigmatizing AIDS

When care is taken out of health care facilities and moved into the community, then community dynamics are added to the picture. People with AIDS and their families suffer from the stigma frequently found in communities and health care facilities. Fear stemming from a lack of knowledge contributes to the rejection of people with AIDS and sometimes their carers too. Without support, communities and families may abandon their traditional caring roles; this can result in despair among carers, and ultimately in the homelessness of

AIDS patients. *Living with AIDS in the community* is a booklet aimed at helping individuals, families and communities to understand AIDS and to live positively in spite of this disease (see box on next page).

The burden of AIDS on the health care system is experienced around the world. Some city hospitals in high prevalence areas have 50–60% of the hospital beds on medical wards occupied by people with AIDS and AIDS-related conditions. However, the impact of HIV/AIDS on households is also enormous: persons with AIDS are economically less productive being able to work fewer hours, so others in the household have to reallocate their time and priorities. And greater spending on caring for the person with AIDS may mean that less is available for the health care of other family members.

Caution is needed, especially to avoid allowing the full burden of home care to fall on females whatever their ages. The distribution of labour within the family should be carefully considered, and communities should develop supportive networks composed of neighbours, religious groups and clubs.

Providing AIDS home care can either bring a family closer together or drive it apart; certainly the family dynamics will be affected. In crowded families struggling with poverty it may be difficult to provide home care. People with AIDS can also experience forgetfulness, confusion and even dementia, which test the coping mechanisms of the family. In contrast, sick individuals who are living alone may be isolated and unskilled in meeting their own nutritional needs and unable to find willing carers and a social support system in nearby surroundings.

Concerns of carers

Care provided by family, friends or neighbours is not without problems. Very few carers will have had appropriate training. They will be worried about their lack of knowledge and

Even in the hospital, family members bear part of the care burden; but it is also an opportunity for them to learn about home care.

Why home care for AIDS?

- Good basic care with the most nurturing and flexibility can be given successfully in the home, as it enables the ill person to be as active and productive as the disease allows.
- People who are very sick or dying would often rather stay at home, especially when they know they cannot be cured in hospital.
- Sick people are comforted by being in their homes and communities, with family and friends around.
- Relatives should be able to carry out their other duties more easily while caring for the sick person who is at home.
- Home care is usually less expensive for families, and sometimes hospital care is not possible.
- Home care provides educational opportunities for personal messages about AIDS prevention, both in families and in communities.

Acknowledgement is given to the staff of the Health Care Support unit of the WHO Global Programme on AIDS.

Care at home involves more than a formal visit, it can also mean a sharing of emotions.

skills. They may be especially concerned about catching AIDS themselves, even though HIV is not spread through normal everyday contact or from taking care of a person with AIDS provided the carer covers any cuts or wounds on the patient and is careful not to touch fresh blood. They may be equally frightened about giving emotional support to a person who is terminally ill. WHO's Global Programme on AIDS has recently prepared an *AIDS home care handbook* (see box) to help health care workers teach and guide families in the emotional and physical care of people with AIDS, including detailed information about common AIDS-related problems. The handbook encourages health care workers to share their knowledge and to empower families to maintain quality of care at home.

Here are two examples of innovative AIDS home care programmes. The Uganda AIDS Support Organization, TASO, ensures that if its clients are well enough they join together for socialization, counsell- ing, medical care, and recreational and income-generating activities. However, if a client is too ill to come to a centre, a home visit – usually by a nurse – is made to provide direct nursing care in the home, to teach the family how to cope with common ailments, and to refer to a hospital if necessary.

In a situation where severe poverty and overcrowding make it very difficult to provide home care, a care unit has been started in Mashambanzou, Zimbabwe, where a patient and a family member share a small room together. The family member is trained to provide care for common ailments and to give comfort. If no family member is available, seropositive individuals who are well are trained to care for others who need home care but where there is no home available.

AIDS home care has to be developed and supported in the midst of poverty, inequality and discrimination. The ancient tradition of home care faces new challenges in the age of AIDS. Those challenges can be met with compassion and education provided families and communities are seen as partners along the continuum of care. ■

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AIDS: handbooks that will help

How can one cope with AIDS? How can one still get the most from life? What can one do in the home setting or after leaving hospital? How can one accept death? How can people suffering from AIDS be helped practically and emotionally?

There are a great many questions, and straightforward and easy-to-understand answers are difficult to find. This is why WHO has published its *AIDS home care handbook*, destined for health care workers, to help them teach people with HIV infection or AIDS, their families and communities. It can also be used by social workers, religious leaders, psychologists and companions, and administrators of health programmes.

The first part is a teaching guide for health care workers who have contact with AIDS patients and their families. It describes the evolution of the disease from HIV infection to AIDS, and suggests how to live positively with AIDS as well as how to care for the dying. The second part is a reference guide to the main symptoms of AIDS: fever, diarrhoea, skin problems, etc., and offers advice on what can be done to care for people at home and when to seek expert help. It also offers general advice covering such varied fields as hygiene, nutrition and maternal and child health.

The handbook is fully illustrated with drawings and uses a real life story to present the details of the disease and its impact on individuals, families and communities.

Another illustrated book – written and published jointly by the Ugandan AIDS Control Programme, TASO (Uganda's AIDS Support Organization), UNICEF and WHO – bears the title: *Living with AIDS in the community, a book to help people make the best of LIFE.*

Both books are available from Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland, price Sw.fr. 18.– and Sw.fr. 6.– respectively. Single copies are free of charge to developing countries.

Young men in a hospital of Eastern Europe. AIDS patients have no need to be isolated and ought not to be stigmatized.

Adding life to years

S. D. Gokhale & Chandra Dave

Recently one of us visited the earthquake-shattered village of Killari in central India to review the progress of rehabilitation work carried out by our Community Aid and Sponsorship Programme. In one single-room house, the young breadwinner and his wife had slept inside, as is the local custom, while the grandmother and her grandchild had slept outside in the open. During the earthquake, the four walls had caved in, killing the young couple and leaving the other two persons destitute. Surprisingly, no one asked us to send the child to an orphanage or the elderly woman to an old-age home. Kisan, a disabled young man, said he would take care of both as he was very distantly related to them. Here is a typical example of the role of the extended family in India: to provide social security even in the circumstances of utter poverty – the real expression of kinship bonds.

To reach old age used to be the privilege of a few. Now it has become the ordinary experience in many countries of Asia. The vulnerable groups among the aging population in India are elderly widows, the childless elderly, the physically disabled, the elderly whose children have migrated abroad and the elderly in an alien environment. The objectives of the Old Age Policy as proposed by the Indian Federation on Ageing include providing employment options and family support, income security and health insurance, social and economic support to those elderly without families, access to health services and housing and area planning to suit the special needs of the elderly.

Using 60 as the age to designate "the elderly" this group in the population of India has been estimated at 55 million persons, comprising 6.5% of the total population of 844 million in the census year 1991. Most government pensions for destitute old people start at age 66 (earlier for women). The railways, the largest public enterprise, offer certain concessions in terms of fares to senior citizens beginning at age 65. The federal government also grants tax benefits to senior citizens aged 65 years and above.

The pendulum of social thought has moved away from doling out cash and institutional services. Instead, society is looking forward to an aging process which is healthy, economically productive and politically participatory.

Living to a great age is beginning to be commonplace in many countries of Asia.

The kinship bonds of the extended family provide social security both for the old and for the very young.

The family as care-giver

For some years, Western social scientists have been worried about the future of the family as a social institution, and have publicly declared that the family system would wither away. But the family as an institution has not withered away in India. While the kinship arrangement is undergoing a tremendous change, the family as an institution has shown enough flexibility to cope with the changing times. It remains the main provider of care to the elderly.

Homes for the elderly total little more than 350, so these residential institutions clearly cannot cope with the problem. Therefore the vast majority of the old in India do not stay in institutions, which are mostly in urban locations. Most of the old are scattered among the 700 000 villages in a family setting.

Going to see the doctor may seem to be an expensive luxury for many elderly people

However, there are variations in the family arrangements. The much eulogized joint family system whereby the sons, their families and widowed sisters and aunts stayed under a patriarch has been found by sociologists not to have been as utopian as first portrayed. Furthermore, poverty, the growing population and urbanization are adversely affecting many traditional relationships.

There is no cut and dried definition of a family in India. Certain categories of relationships permit people to stay with a relative without arousing any social opprobrium. In oriental societies generally, the concept of dependence does not entail a sense of inadequacy or shame. Dependence is taken for granted. Certainly living in a family, however close or distant the kinship, protects the elderly from much social trauma, and the concept of care encompasses addressing whenever possible the physical and mental needs of old age, financial difficulties, the loss of meaningful relationships and generally declining functional capabilities.

To the extent that about 30% of the population live below the poverty line, financial considerations are a stark reality for the elderly. For the poor and old in the unorganized sector in India, there is no retirement. They continue to work, changing from hard labour to lighter tasks, but they share a sense of togetherness with the family that is often wanting in some who are better-off. The elderly may feel the loss of near and dear ones – a wife or a husband – but they are not lost, nor left to the mercies of society. On the other hand, during illness, they are often medically unattended as the logistics of arranging a visit to a doctor entail too much expense and effort.

For the poor elderly in India, there is no retirement and certainly no pension. Their working lives go on.

Stressful situations

It is among the middle-class and the middle-salaried that the care of an aged parent tends to cause especially stressful situations. The practice of the aged person staying with the son and his family means that the daughter-in-law – the home-maker and the carer – spends more time with the house-bound elderly. While the older person may easily adjust to the small, circumscribed world, the carer may experience great stress because of the workload and monotony of many tasks. The government's Department of Social Welfare offers monetary assistance to families who look after an indigent old person, and the idea of putting such a person in an institution is frowned upon. It is probable that, but for the cultural rejection of that idea, many more old persons would seek the shelter of old-age homes.

Neighbours in every village or town play a prominent role in the provision of home care, taking a lively interest in each other's lives and offering help on a reciprocal basis. In many neighbourhoods, the daily exchange of food items is a common occurrence. Old and young develop surrogate relationships which may offer an emotional catharsis in times of stress. Among middle-class people living in high-rise city buildings, this neighbourly reciprocity does not come to the fore. In such socially isolated apartments, the old may suffer a great deal.

Voluntary organizations most often operate in low-income housing complexes where the volunteers can easily visit the families of the old. After initial contacts, the elderly are coaxed to come to the centre for the activities run by the organization. These may include periodic health check-ups, the removal of cataracts, the making of handicrafts, the reading of newspapers, the arranging of picnics and participation in song sessions.

Aging is not merely a demographic issue, since how it is perceived is culture-dependent. In Western societies, there is little belief in the eternal cycle of life; aging is seen as a traumatic process, and retirement as a problem because it brings people nearer to death. To an Indian mind, death is not the end of a book but the end of a chapter. Consequently aging is not traumatic. There is no fear of being isolated or socially rejected when elderly.

In the context of sweeping changes in the economy and family structure, the question "what is and what should be the family's responsibility for older people?" needs to be examined. Policy-makers in India are now facing this challenge. Declining family size means there are and will continue to be fewer potential carers for the older person. Moreover, the increasing tendency for married women to become wage-earners restricts their availability to care for the aged.

While questions such as health, housing and employment are important, the most fundamental question is how the elderly look upon aging themselves. Perhaps many cultures have a lot to learn from the Indian philosophy. The pendulum of social thought has moved away from doling out cash and institutional services. Instead, society is looking forward to an aging process which is healthy, economically productive and politically participatory. This is the true meaning of adding life to the years that – thanks to medical advances – have been added to life. ■

Provided the elderly stay healthy and feel useful, they make a positive contribution to the life of society.

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Researching the health of the elderly

Stefania Maggi

WHO's strategies for the elderly are aimed at maintaining the quality of life for this population group.

Research projects by WHO's Health of the Elderly Programme will help minimize the decline in the quality of life that comes with age, so that everyone can have the most fulfilling life at home for as long as possible.

he need to gain an understanding of some of the most devastating chronic diseases of older persons was emphasized by a World Health Assembly resolution in 1987. It is, after all, these illnesses and similar afflictions which prevent all of us from functioning in our homes for as long as we might otherwise.

The research effort of the Health of the Elderly Programme, which is coordinated in the WHO Office for Research on Aging at the National Institute on Aging, National Institutes of Health, Bethesda, Maryland, USA, has undertaken a series of cross-national research projects directed towards an understanding of the age-associated dementias, osteoporosis, age-related changes in immune function and the determinants of healthy aging – all of which are relevant to home care. By carrying out cross-national research, the Programme hopes to identify risk factors for some of the conditions which are devastating to many of us as we age and at the same time to contribute to the basic needs assessment of the older population

The dementias

The objectives of the age-associated dementias project are to estimate age and sex-specific prevalence and incidence rates of dementias, and to investigate the distribution of several possible risk factors in Chile, Malta, Nigeria, Spain and the United States. The clinical manifestation of these illnesses appears to reflect cultural and environmental factors as well as genetic determinants. Over time, an impairment of cognitive function is virtually always associated with deficits in both the fundamental activities of daily living and the more complex daily activities such as shopping. These disabilities, which usually increase in severity, result in the need for both family members and health care agencies to provide progressively greater amounts of assistance to those afflicted.

Caring for a demented relative is among the most stressful of all activities, often interfering with the carer's work capabilities, with very negative consequences on family relationships and lifestyles. In turn, these problems may well affect the care provided to the sick individual. Respite care – allowing a welcome break – is therefore one of the greatest unmet needs expressed by carers. This project, designed to elucidate the causes of this disease or group of diseases, may also be instrumental in providing information on the unmet needs of millions of persons worldwide who have a dementing illness, as well as the needs of their families as they struggle to maintain these persons in the home setting

Brittle bones

Another project for research in the Programme addresses a serious and crippling illness, osteoporosis, which impairs function in older

Old women in Asian countries have fewer hip fractures than those in "Western" countries in spite of their lower bone density.

women especially. This effort, to be carried out in Brazil, China, Hong Kong, Hungary, Iceland and Nigeria, is designed to identify risk factors associated with hip fracture, a frequent consequence of this "brittle bone" disease and one which can result in devastating and irreversible loss of function. Dietary habits, reproductive history, physical activity, medication use, neuromuscular impairments, visual impairments and cigarette smoking are among the risk factors being studied to determine exactly what measures might limit or delay the likelihood of hip fracture.

This project may help to explain the differences in hip fracture incidence rates – for example, why older women in Asian countries, in spite of a relatively low bone density, appear to have fewer hip fractures than older women in some other countries. The research programme will focus on changes in bone mineral density over time and the risk factors involved. This will require individuals to be followed for a number of years so that deterioration in bone strength and difference in hip fracture rates can be measured. The incidence of hip fracture is projected to quadruple by the middle of the next century, at very high cost to individuals and nations in both economic and human terms.

Successful aging

A third research project is being carried out in Costa Rica, Israel, Italy, Jamaica, Thailand and Zimbabwe. It is designed to describe the health and functional status of that unique segment of the older population living at home which has aged successfully, often in spite of the accumulation of disease over a lifetime. This study will test hypotheses regarding the conditions that predict differences in rates of healthy aging both within countries and between countries. Each country should be able to profit from the experience of others by putting in place those preventive measures which will result in an even greater proportion of the population aging successfully.

Assessing the needs of the elderly all over the world will help to ensure that the strategies of care are put in place.

Better vaccines

In a related effort, the research programme is supporting the development of better vaccines for use in the home setting. In association with the Institute for Advanced Studies in Immunology and Aging, the programme is sponsoring collaboration among scientists involved in developing new technologies directed to the design of vaccines against influenza and pneumococcal infection. These diseases cause exceptionally high rates of morbidity and mortality in the older population. The need for tens of thousands of individuals to be sent to hospital would be eliminated if new and more effective vaccines were developed and widely used.

Healthy aging promotes the most fulfilling life at home for the longest possible time.

Home care assessment

Lastly, because the Health of the Elderly Programme is fundamental to the maintenance of older people in their homes, it is collaborating with scientists from Belgium, Italy, Japan, Sweden, the United Kingdom and the United States to design ways that can be used in several countries to assess the needs of this segment of the population. With a valid, reliable and easy-to-use needs assessment instrument, each country will be able to tailor effectively and appropriately its services for all persons as they age.

These research projects – dedicated to providing continuous, standardized, epidemiological surveillance of the rapidly increasing older population – will study both those who remain functional for the greatest length of time, and those who show a decline in function. We believe that these and similar efforts will help minimize the decline in the quality of life that comes with age, so that everyone can have the most fulfilling life at home for as long as possible. ■

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Sweden's Servicehouse concept

Britta Asplund & Ruth Bonita

Personal autonomy is important for the elderly and deserves to be encouraged by every means available.

It is taken for granted in Sweden that older people have made an important contribution to society and now deserve a good life and the best that can be offered. The Servicehouse is regarded as a more pleasant alternative to hospital. It is also regarded as a right.

Home health services help elderly people who live alone to stay where they feel most comfortable – in their homes.

Up to 40% of people over the age of 80 in Sweden either have some sort of home care or are cared for in facilities provided by each local council. The municipal councils also have responsibility for group homes, which in turn are based on a social model where personal autonomy is regarded as an important ingredient. Usually 6-8 single apartments or single rooms are grouped around a living room and kitchen, and the residents have their own furniture and keys.

In 1992 there were around 6000 demented or confused elderly people living in group homes, although it is estimated that by the year 2000 places will be needed for 25 000.

Currently there are between 45 000 and 50 000 nursing-home beds and 40 000 sheltered homes. Most of the sheltered homes try to develop a familiar home-like atmosphere with routine activities and household tasks where the staff are seen as positive role models. Since hospital care is expensive and the communities have their own medical staff, sheltered homes are regarded not only as an inexpensive form of care, but also as a humane one. It is taken for granted in Sweden that older people have made an important contribution to society and now deserve a good life and the best that can be offered.

A model centre has recently been developed in Sweden for the care of older people. This "Servicehouse" comprises specially built self-contained apartments, provided by the local council and catering to people needing rest-home care, those needing considerable help and supervision, confused elderly people, and short-stay residents requiring respite from caring for elderly relatives in the community. The Servicehouse is an attractive building with 48 apartments, nine of which are for patients clinically diagnosed as having dementia. Before 1991 it was an "old people's home" where each person had just a single room and a toilet, with only two bathrooms in the whole building.

Help in the home

We visited one woman who was on the waiting list for one of the Servicehouse apartments. Although needing a walking aid she lives alone on the second floor of a building with no lift and where the washing machine is in the basement. She cannot manage the stairs by herself and has a home help every day, besides help from her relatives. When she had just come home from hospital after a hip fracture, she felt insecure and very afraid of another fall but managed quite well. Home service was provided three times a day and evening "patrols" dropped in and helped her prepare for bed. Food service was provided three times a week, with two days' supply of meals at a time. She has a safety alarm linked with the Servicehouse, and could use a community-subsidized taxi service.

Monthly rental for a Servicehouse apartment with a fully equipped kitchen and bathroom is around US$

350-400, or $700 including full service (cleaning and full personal care) and all meals. Residents have their own furniture and furnishings to their own taste. A restaurant is also available which provides three meals a day.

The Servicehouse plays an integral part in the community because it also provides respite care (alternative day care). There is no limit to the amount of relief that carers can provide; it depends entirely on the person's needs. Care in the Servicehouse is regarded as a less expensive alternative and a more pleasant one than hospitalization. It is also regarded as a right.

The "servicehouse" concept is satisfying both for the elderly who need care and for the students to whom it gives employment.

For the confused elderly

The special unit for the confused elderly consists of two separate sections, one containing four apartments and the other, five. It was opened only 18 months ago and all residents (and staff) have been carefully chosen. The staff furnished the place, planned all the activities, made schedules and received one week's in-service training and education from a doctor and advice from the psychogeriatric clinic.

Each staff member is assigned to one or two residents and takes a special interest in those persons by checking doctor's appointments and arrangements, providing a focal point for continuing care, and in general acting as an advocate and contact person for relatives. The contact staff member also prepares the box of medicines to be taken each night and keeps a log book for each resident. This becomes an important document and is available for staff and relatives to read. It is also a way of documenting changes over time. Electronic surveillance ensures that staff members know at any stage where an individual patient is.

The whole complex provides employment for students during the summer months. Up to ten students, mainly women, help in keeping the old people active and interested. By being paired with a full-time staff member, they are trained and eventually assigned their own special charges. The students are then able to take sufficient responsibility to allow staff members to go on annual leave. ■

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Older people having made their contribution to society, in their later years they deserve a good life and the best care that can be offered.

Loving care: the recipe that makes everyone feel at home.

Community Action

Care of the elderly – a community health objective

Prosper Mihindou-Ngoma

Delegates to the **World Health Assembly** *and other health experts are invited to participate in Technical Discussions on a chosen theme of importance for international public health. This year the theme was "Community action for health", with the accent on the need for a dynamic partnership between health professionals and individuals in the community to ensure a focused improvement in each community's health status.*

ealth care services for people over 60 in Africa will need to be intensified in the next few years as they will number some 420 million by 1995 – 7% of the total population of the continent.

The traditional structures that once cared for the old are now in danger of disappearing for a number of reasons, including a rural exodus. Families have also suffered an enormous reduction in their financial capacity to provide for their elders as a result of the economic crisis engulfing the continent. It must also be said that most of the African countries have no specific social or medical policy for this vulnerable age group.

This is the context in which, six years ago, the WHO Regional Office for Africa introduced a programme on the welfare of the elderly. Accordingly, it funded activities for the elderly in two countries in 1990 and 1991.

Designated as one of the targets for the community health programme, the welfare of the elderly is seen to depend on the utilization of their skills, economic independence, and the maintenance of physical fitness, mental health and social contacts. Stressing the community approach of primary health care, WHO regards the family as the indispensable circle within which older people must be made to feel valued and useful. Through dialogue with the young, for example, they may be able to pass on the cultural heritage of the past or teach the medicinal properties of certain plants.

To keep older people in good mental health, communities should entrust them with certain tasks, such as looking after children, or involve them in activities that interest them. As they are often poor, this could be a source of income for those who are physically fit. Older people should also be encouraged to join in committees to welcome visitors or village or district health committees, or to take part in interviews with the media.

Essential health care must be made available to the elderly and special attention must be given to the chronic diseases that sap their health (for example, diabetes, high blood pressure, degenerative joint disease). Their diet and personal hygiene need to be matters of concern for the community.

WHO'S African Member States are now being challenged to look for the means to develop domiciliary care, which is a much more important need for the elderly than hospital care. This will demand a change in attitudes among health workers and the public authorities. The former will have to explore a new aspect of their profession, while the latter must be brought to understand the need to increase their funding for this programme. ■

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WHO in action

Risk-free beaches

In WHO's European Region, more than 100 million people each year use salt-water and fresh-water beaches for their recreation. Naturally, they want to be sure that they can enjoy their beach games or water-sports without the risk of falling ill from diseases caused by contamination or pollution. However, different countries have different ways of measuring water quality standards; most of them focus only on swimming and bathing as the main activities, and limit themselves to checking only the bacteria contents of the water. The "new" countries of Eastern Europe are also wondering what standards they should adopt.

The Mediterranean Action Plan – an initiative covering 17 coastal states and involving the UN Environment Programme (UNEP) as well as the WHO Regional Offices for Europe, Africa and the Eastern Mediterranean – laid down the microbiological basis for new, more comprehensive guidelines.

Now the WHO Regional Office for Europe is developing broader guidelines for the health-related monitoring of salt and fresh water as well as beaches. Dr Bent Fenger, water and waste scientist at the Rome-based WHO European Centre for Environment and Health, comments: "Recreational use does not begin at the water's edge. Beaches themselves are just as important, and guidelines are needed to evaluate their quality as well. Not only that, but service facilities and amenities such as toilets and food vending places have a health significance that needs to be considered."

The guidelines will also cover aspects that have hitherto received little attention. While people want bathing water that is free from any risk of infection, they also want water that does not stink, look cloudy, taste nasty or have oil, scum or litter floating in it. Then there are the physical characteristics of the bathing area. Is the bottom sandy or filled with sharp rocks? Does it contain broken glass or rusting cans? Is it flat, sloping or does it drop suddenly into deep water? The guidelines will provide clear explanations about what constitutes quality, and offer practical advice on how to achieve it.

"Our final customers are the people who use these recreational resources," says Dr Fenger. "We want to send a clear message to them about what WHO as a health organization recommends as good recreational quality." ■

Further details available from Dr Bent Fenger, WHO European Centre for Environment and Health, Via Vincenzo Bona 67, 00156 Rome, Italy.

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In the next issue

As we are approaching the 21st century many new developments are emerging in the socio-medical field. The next issue of ***World Health*** will describe some of the current trends which are shaping the medicine and the public health scene of tomorrow. ■

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